Injuries in sporting and non-sporting children and adolescents with a physical disability or chronic disease: a cross-sectional study

Masterthesis

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SAMENVATTING

Achtergrond
Het verhogen van de hoeveelheid fysieke activiteiten wordt bij kinderen en adolescenten met een fysieke beperking of chronische aandoening ingezet om gezondheid te bevorderen. Er is echter geen informatie beschikbaar over mogelijke blessures in deze populatie.
Doelstelling
Het bepalen van de incidentie dichtheid (ID) van blessures bij sportende en niet-sportende kinderen en adolescenten (10-19 jaar) met een fysieke beperking of chronische aandoening. Daarnaast het bepalen van de verschillen in proporties van blessures en het bepalen van de verschillen in kenmerken en gevolgen van blessures in beide groepen.
Methode
Het design was cross-sectioneel. Deelnemers ontvingen een online vragenlijst over algemene gegevens en over fysieke activiteiten en blessures opgelopen in de afgelopen drie maanden. ID werd berekend per 1000 uur ingeroosterde fysieke activiteiten. Chi kwadraat testen werden gebruikt om het verschil in proporties te analyseren. Beschrijvende statistiek werd gebruikt voor kenmerken en gevolgen van de blessures.
Resultaten
De totale steekproef bestond uit 48 deelnemers, 23 in de sport groep en 25 in de niet-sport groep. De ID was 5.7 in de sport groep en 10.8 in de niet-sport groep. Er was geen statistisch significant verschil in proportie van blessures. In beide groepen waren type en locatie vergelijkbaar en kwamen voornamelijk lichte blessures (gerelateerd aan absentietijd) voor. De meeste blessures waren ontstaan bij hoog intensieve fysieke activiteiten in de sport groep en bij laag intensieve fysieke activiteiten in de niet-sport groep.
Conclusie
De lagere ID in de sportgroep en de vergelijkbare proporties van blessures in beide groepen indiceren dat sporten veilig is voor kinderen en adolescenten met een fysieke beperking of chronische aandoening
Klinische relevantie
Sporten is veilig maar training moet aangepast worden aan de dagelijkse hoeveelheid fysieke activiteit en mogelijke intrinsieke riscofactoren. Leerkrachten lichamelijke opvoeding moeten geïnformeerd worden dat kinderen met een lage dagelijkse hoeveelheid fysieke activiteit kwetsbaarder zijn.

ABSTRACT

Background

Raising levels of physical activity is used to improve health in children and adolescents with physical disabilities or chronic diseases. However no information on possible injuries in this population is available.

Aim

To identify the incidence density (ID) of injuries in sporting and non-sporting children and adolescents (10-19 years) with a physical disability or chronic disease. In addition to identify differences in proportion of injuries and differences regarding characteristics and consequences of injuries in both groups.

Methods

A cross sectional design was used. Participants filled out an online questionnaire on baseline characteristics and on physical activities and injuries experienced in the past three months. ID per 1000 hours of scheduled physical activity was calculated. Chi square tests were used to analyze the difference in proportions of injuries and characteristics and consequences of injuries were described for both groups.

Results

The total sample consisted of 48 participants, 23 in the sporting group and 25 in the non-sporting group. The ID was 5.7 in the sporting group and 10.8 in the non-sporting group. Proportions of injuries were not significantly different. In both groups type and location of injuries were comparable and most injuries were minor when looking at time-loss. Most injuries were sustained during physical activities of high intensity in the sporting group and during physical activities of low intensity in the non-sporting group.

Conclusion

The lower ID for injuries in the sporting group and comparable proportions of injuries in both groups indicate sporting is safe for children and adolescents with a physical disability or chronic disease.

Clinical Relevance

Sporting is safe but training should be adapted to habitual levels of physical activity and possible intrinsic risk factors should be taken into account. Physical education teachers should be informed pupils with low levels of habitual physical activity are more vulnerable.

Keywords: injuries, children, adolescents, physical disability, physical activity

INTRODUCTION

At least 14% of the children and adolescents in the Netherlands will grow up with a chronic disease and/or physical disabilities.(1) Children and adolescents with chronic diseases and physical disabilities show lower levels of physical activity and physical fitness compared to their healthy peers.(2-8) Studies on training children with physical disabilities have shown that increasing physical activity improves physical fitness and reduces level of adiposity and cardiovascular risk factors.(3-6, 9) Therefore special programs are developed to stimulate physical activity to improve health and level of activity in children and adolescents with disabilities.(4, 10) Physical activities in children include sports, physical education, active transportation to school and leisure time activities.(11)

A possible negative consequence of increasing physical activity however, is the risk of injury.(12) Children and adolescents may be at risk of injuries because of growth and not fully developed coordination and skills.(13-15) Injuries in children can lead to less participation in physical activity and loss of school time.(16) Parents of children with physical disabilities mention fear of injuries as one of the barriers to stimulate their children to participate in sports.(17, 18) Another consequence of injuries is the medical costs for society.(19)

The amount of sports injuries in healthy Dutch children aged 9-12 years increased from 130.000 up to 230.000 between 2006 and 2011.(20) Studies into injuries in healthy children and adolescents concluded that injuries related to sports and recreational activities are the leading cause.(21, 22) A recent systematic review reported that the absolute number of injuries sustained at sports and leisure time physical activities were equal in healthy children.(23)

Information on injuries in children and adolescents with a physical disability or chronic disease sustained at physical activities is scarce. Some studies reported a higher percentage of injuries in children with disabilities compared to children without disabilities. However mental and emotional disabilities were also included or children with physical disabilities were compared to children with developmental disabilities.(24-26) Moreover no difference between active and non-active children was made.(24-26) Specific information on sports injuries in children and adolescents with a physical disability lacks because no injury registration in adapted youth sports is available. In literature only one study, using questionnaires, focused on sports injuries in pediatric wheelchair athletes.(27) Reported percentages of injuries vary between 22% and 97%.(27) Because no exposure time was taken into account comparison with other studies on sports injuries is difficult.(28)

The relation between levels of physical activity and the risk of injuries has been studied in healthy children. A study comparing children at schools with the same level of physical education reported a higher level of physical activity reduced the overall risk of injuries.(29) Children with the lowest levels of physical activity had the highest risk of sustaining injuries.(29) Knowledge about injuries in children and adolescents with a physical disability or chronic disease with different levels of physical activity is lacking. Given the contemporary

focus on stimulating physical activity in children and adolescents with a physical disability or chronic disease (4, 10) and the fear of their parents sporting will lead to injuries (17, 18), information about injuries in children and adolescents with different levels of physical activity is needed.
Therefore the current study, which is part of the Health in Adapted Youth Sports (HAYS) study (30), focused on injuries sustained at physical activities in sporting participants (participating in organized sports at least two times a week, excluding physical education) and non-sporting participants. An injury was defined as: any injury resulting from sports activities, physical education, active transportation or leisure time physical activities resulting in discomfort and/or days of absence at school or physical activities and/or leading to need of care or medical attention. (modified definition of definition used by van Mechelen(28))
Because of the before mentioned results in healthy children, indicating that children with the lowest levels of physical activity have the highest risk on injuries(29), we hypothesised sporting children and adolescents with a physical disability or chronic disease would have a lower incidence density (ID) of injuries compared to their less active peers.
To test the hypothesis, the primary aim of the current study was to identify the ID of injuries in sporting and non-sporting children and adolescents aged 10-19 years with a physical disability or chronic disease. In addition differences in proportion of injuries in both groups were analyzed and differences regarding type, location, consequences of injuries and involved physical activity were described.

METHODS

Study design

The current study used a cross-sectional design and was conducted within the HAYS-study.(30)The HAYS-study is a cross sectional study, which primary objective is to establish the health effects of sport participation in children and adolescents with a physical disability or chronic disease. The HAYS study started in October 2014 and will continue till 2017. The HAYS-study is part of a larger study into health effects of sport participation in children and

adolescents with a physical disability or chronic disease.(30) Parallel to the HAYS-study, the Sport-2-Stay-Fit (S2SF) study is conducted. The S2SF-study uses the same population and studies the effects of an afterschool trainings program.(figure 1)

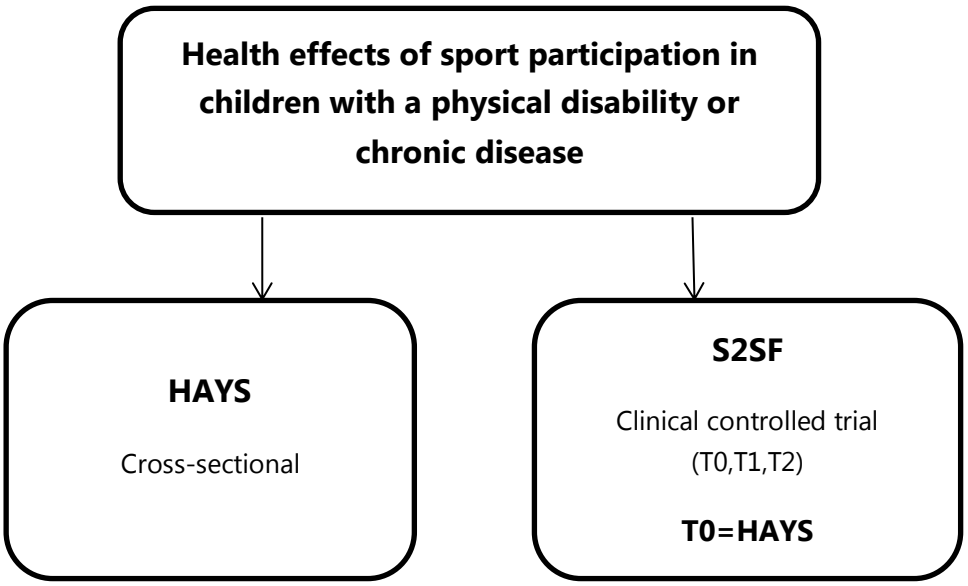


Figure 1: relationship HAYS and S2SF

The current study was conducted according to the principles of the Declaration of Helsinki (64th WMA General Assembly, Fortaleza, Brazil, October 2013) and in accordance with the Medical Research Involving Human Subjects Act (WMO). The Medical Ethics Review Committee (MERC) of the University Medical Center Utrecht declared no need for official approval of the HAYS study. Written informed consent, including use of data of the S2SF-study was obtained from all participants and their parents.

Population

For the current study ambulant sporting and non-sporting children and adolescents aged 10-19 years with a physical disability or chronic disease were included. Sporting was defined as: participating in organized sports for at least two times a week, excluding physical education. In order to be eligible to participate, a subject needed to meet all of the following inclusion criteria: children and adolescents between the age of 10 and 19 years with a physical disability or chronic disease (cardiovascular, pulmonary, musculoskeletal or neuromuscular), able to understand simple commands and able to perform physical fitness tests. Exclusion criteria were: children and adolescents with progressive diseases and participating in other research projects during the length of the HAYS-study which might influence the current study results.

Data collection

For the HAYS and S2SF-study children and adolescents were recruited through distributing flyers among different patients associations and sports clubs from recreational to top sport level. If they were interested they could contact one of the principal investigators of both studies. After inclusion in the HAYS or S2SF-study the participant received an email at home with the request to fill out a general and physical activity/injury questionnaire on a password secured website. A link to the two questionnaires was included. The answers were returned and documented in a database. The questionnaires were checked on missing items at the testing day of the other HAYS parameters and completed if necessary. Data collected between October 2014 and March 2015 were used for the current study.

Outcomes

The primary outcome was the ID per 1000 hours of scheduled physical activity. Scheduled physical activity included: sports, physical education, active transportation to school and scheduled sports activities. Secondary outcomes were the proportions of injuries and description of injuries. Two online questionnaires were used; a general questionnaire on baseline characteristics and a questionnaire on physical activities and injuries. The questions on characteristics and consequences of injuries were based on the recommendations in the handbook on epidemiology in sports.(31) Information on experienced injuries in the past three months was collected. Questions included were: age, gender, disorder/disability, weekly hours of sports, physical education, active transportation to school and organized sports activities, type of injury, location on body of injury, injury at which activity sustained, treatment, residual symptoms and duration of absence from physical activities.(physical activity/injury questionnaire, see appendix 1)

Analysis

Descriptive statistics were used to present demographics of the participants. To calculate the (ID) per 1000 hours of scheduled physical activity for both groups the formula by van Mechelen was used(28):

$$\text{Incidence Density} = \frac{(\text{No. of injuries / three months}) \times 1000}{(\text{No. of participants}) \times (\text{hours of scheduled physical activity/week}) \times \text{weeks}}$$

Weekly exposure during the recall period of three months to sports, physical education and scheduled sports activities was multiplied by 10 instead of 12 to account for school holidays in a three months period. The outcomes on injuries and sporting or non-sporting were dichotomous and analysed by a $\chi 2$ test to detect differences between proportions of injuries between the sporting and non-sporting group. P-values lower than 0.05 were considered significant. Secondary study parameters were analysed using descriptive statistics for the sporting and non-sporting group. The National Athletic Injury Registration System (NAIRS)

based on days of absence was used to classify the injuries into minor (1-7 days), moderate (8-21 days) and serious (>21 days).(28).

RESULTS

Population

At the end of the inclusion period 48 participants were eligible, 23 sporting participants (all HAYS-participants) and 25 non-sporting participants (8 HAYS participants and 17 S2SF-participants). In the sporting group 70% boys and 30% girls participated versus 56% boys and 44% girls in the non-sporting group. The most reported disorder was a neuromuscular disorder (65 % in the sporting group and 56% in the non-sporting group). For more details on baseline characteristics see table 1.

Table 1 Baseline characteristics of participants by group

Variable	Sporting(n=23)	Non-sporting(n=25)	Total(n=48)
Mean age ± SD, y.	14,61 ± 2,554	13,04 ± 2,685	13,79 ± 2, 713
Gender	16 boys, 7 girls	14 boys, 11 girls	30 boys, 18 girls
Disability/disorder			
Cardiovascular	3	2	5
Metabole	-	2	2
Musculoskeletal	3	3	6
Neuromuscular	15	14	29
Immune system	-	1	1
Epilepsy	2	1	3
Developmental Delay	-	2	2

Abbreviations: y=year

All ages were represented in the total sample. The percentage of injuries was diverse across ages and ranged from 0% at 13 years up to 66% at 12 years. (table 3)

Table 3 Distribution of ages and number of injuries per age in total sample.

	N=48	injuries per age	
Age in years	N	N	%
10	7	1	(14%)
11	8	2	(25%)
12	3	2	(66%)
13	2	0	(0%)
14	8	4	(50%)
15	6	3	(50%)
16	2	1	(50%)
17	8	2	(25%)
18	4	2	(50%)

Incidence density, proportion of injuries

A total of 17 injuries was reported, 10 in the sporting group by 9 participants and 7 in the non-sporting group by 6 participants. The weekly exposure to sports, physical education and active transportation to school was 176 hours for the sporting group and the weekly exposure to organized physical activities, physical education and active transport to school was 65 hours for the non-sporting group. This resulted in a weekly exposure of 7.6 hours for the sporting group and 2.6 hours for the non-sporting group. When taking exposure time into account, the ID per 1000 hours of scheduled physical activity was 5.7 for the sporting group and 10.8 for the non-sporting group for the recall period of three months.

The proportion of injuries in the sporting group was not significantly different from the proportion of injuries in the non-sporting group ($\chi 2$ 0.669, p=0.413; table 2.)

Table 2 Sport yes/no versus injury yes/no

		Injury		Total
		Yes	No	
Sport	Yes	10(43,5%)	13(56,5%)	23
	No	7 (28,0%)	18 (72,0%)	25
Total		17	31	48

Injury characteristics

In the sporting group the most reported injury was contusion/sprain followed by rupture. In the non-sporting group the most reported injury was also contusion/sprain followed by swelling and muscle stiffness. Most mentioned body parts were ankle/foot and knee in the sporting group and ankle/foot and wrist/hand in the non-sporting group. The most common physical activity at which the injury was sustained was soccer for the sporting group (50%)

and physical education for the non-sporting group (86%). For all injury characteristics and absolute numbers see table 4.

Table 4 Injury characteristics (type, location, involved physical activity) by group

	Sporting	Non-sporting
Number of injuries	10	7
Type of injury		
Contusion/sprain	3	5
Contusion/bruise	1	-
Luxation	1	-
Swelling	1	1
Rupture ligament	2	-
Stiffness muscles	-	1
Unknown*	2	-
Location of injury		
Thigh	-	1
Knee	3	-
Lower leg	2	1
Ankle/foot	4	3
wrist/hand	-	2
abdomen	1	-
Involved physical activity		
Soccer	5	-
Sitting-Volleyball	1	-
Cycling	1	-
Physical education	-	6
Cycling during ADL	1	-
At school playing outside	1	1
Unknown*	1	-

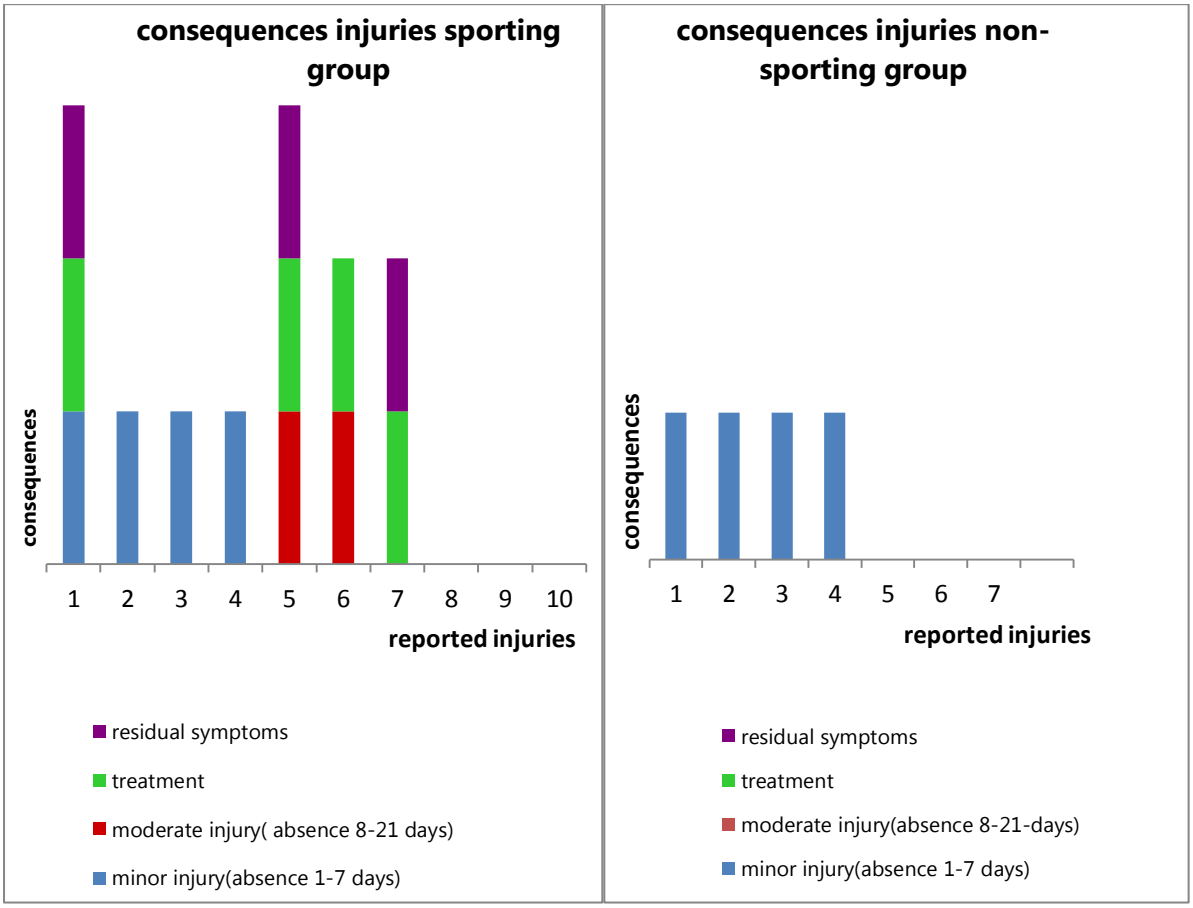
* unknown, because type of injury or involved sport or physical activity was not recorded

Abbreviations: ADL= Activities of Daily Living

Consequences of Injuries

Consequences of injuries included absence of school and/or physical activities, needed treatment and residual symptoms. Absence of school and /or physical activities was reported in six of the injuries in the sporting group and in four of the injuries in the non-sporting group. In the sporting group four minor injuries and two moderate injuries were reported and in the non-sporting group four minor injuries, when using the classification of NAIRS.(28) Treatment by a physiotherapist was reported four times in the sporting group and no treatment was reported in the non-sporting group. Residual symptoms were reported by three participants in the sporting group. Two participants reported pain and stiffness, one needed to wear a brace at sport. No residual symptoms were reported in the non-sporting

group. The consequences per injury are pictured in figure 2.



Notes:

- injury 8: led to non of the indicated consequences
- injury 9,10: consequences were not reported
- injury 5,6,7 : led to non of the indicated consequences

Figure 2 Consequences of injuries per injury presented for sporting and non-sporting group

DISCUSSION

The primary aim of the current study was to identify the ID of injuries in sporting and non-sporting children and adolescents with a physical disability or chronic disease. The results showed sporting participants had a lower ID and a comparable proportion of injuries, which indicates participating in sports is safe for children and adolescents with a physical disability or chronic disease.

Incidence density and proportion of injuries

The lower ID found in the sporting group compared to the non-sporting group was similar to the findings of the iPlay study, a study into risk factors associated with injuries resulting from physical education, leisure time physical activity and sports in healthy children aged 9-12 years at Dutch primary schools.(29) The children with lowest levels of physical activity had the highest ID.(29) However accurate comparison is hampered because the current study did not take leisure time physical activities into account. It could be possible that the participants in the non-sporting group had a higher level of leisure time physical activities than their sporting peers leading to other outcomes. The reason for not taking leisure time physical activities into account is the use of self-reported levels of physical activity. Sports, organized sports activities, physical education and active transportation are scheduled activities and leisure time physical activities have to be estimated leading to probable overestimation of exposure.(32) In other literature on injuries in healthy children, participating in sports is frequently associated with risk of injuries.(22, 33) Because these studies made no distinction between children with different habitual levels of physical activity it is not known if children with higher levels of physical activities had a different injury risk compared to children with lower habitual levels of physical activity. (22, 33)
The absolute proportion of injuries found in both groups (44% for the sporting group and 28% for the non-sporting group) was high compared to the proportion found in the iPlay study (12%). An apparent difference between the studies is the population, healthy children versus children with disabilities. Specific disabilities or disorders in children could have a higher risk of injuries but no information is available on this subject. A study into adults with disabilities concluded athletes with cerebral palsy sustained more soft tissue injuries compared to athletes with other disabilities because of specific moving and walking patterns.(34) The difference in outcomes could also be the result of the age differences in studied populations. The iPlay study included children between 9-12 years and the current study included children and adolescents between 10-19 years. From studies in healthy children it is known that increasing age raises the risk of injuries mainly after the age of 13.(33, 35) However it is not known if this is also true in a population of children and adolescents with disabilities. In the current sample the highest percentage of injuries was

reported at the age of 12 and the lowest at the age of 13. Other reasons for the dissimilarity could be the smaller sample in the current study and also the differences in study design. The population of the iPlay study consisted of pupils of primary schools who took part in the study and they used a passive form of consent.(36) The current study recruited participants through spreading flyers among patient groups and sports clubs in which injuries were mentioned as one of the subjects of research. This could have led to a sample with relatively more injuries.

Injury characteristics (type, location, setting)

The most common type of injury found in both groups was a contusion/sprain. This is comparable to most studies on injuries in children. The study of Sinclair showed the most common injuries in both children with and without disabilities were open wounds followed by sprains and strains.(24) A possible explanation for the difference could be the before mentioned study also included behavioral and emotional disabilities. In the narrative review of Collard sprains, strains and contusion were reported as the most common injury type in healthy children.(37) In an overview of injuries in young healthy athletes at different sports levels contusion and strains were reported as most common injury.(38) Sprain and contusion were reported the most at youth Olympic level.(39) In the current study the lower extremity was the most injured location in both groups. This is also in line with the outcomes of studies in healthy children.(37, 39-41)

The setting at which injuries were sustained was quite different in the sporting and non-sporting group. In the sporting group almost all injuries were sustained at sports, mainly soccer and non at physical education. Sports are considered a physical activity of moderate to high intensity and physical education a physical activity of low intensity.(42) In the non-sporting group almost all injuries were sustained at physical education. Soccer and physical education as leading in sustaining injuries equals the findings of outcomes on sports injuries in the Netherlands.(20, 43) In contrast Jespersen reported that most injuries were sustained at leisure time physical activities followed by sports (also mainly soccer) and the least at physical education.(41) A possible explanation for the difference with the current study could be the different studied age group of 6-12 years. It is reported that leisure time physical activities like outdoor playing decrease when looking at ages between 9 and 15.(44) Besides that, physical education in different countries is difficult to compare without knowing how physical education is organized.

The fact that the non-sporting group sustained almost all injuries at physical education, a physical activity of low intensity, is a matter of concern. The reason could be non-sporting children have to put more effort into physical education compared to sporting children because of their lower habitual physical activity levels, which raises the risk of injuries. In a study into young conscripts and injuries during military training , low levels of pre-service

physical activity was associated with overuse musculoskeletal injuries and low levels of physical fitness associated with overuse and acute injuries.(45) The authors concluded special attention should be given to training groups with low fitness levels.(45) In addition training unadjusted to the population of children and adolescents is seen as a risk factor for developing overuse injuries in sports.(46)

Consequences of injuries (absence, treatment, residual symptoms)

Most injuries found in both groups were minor looking at the definition based on days of absence from activities, which is comparable to the outcomes of the review of Caine.(47) However two injuries were moderate in the sporting group which implies more serious injuries. Although most injuries can be considered minor, injuries still lead to pain and absence which could lead to negative associations with physical activity.(29) Only in the sporting group injuries were treated, all by a physiotherapist. Because contents of treatment were not included in the questionnaire, no conclusions can be made regarding severity of injuries. It could be argued that many sports clubs have a physiotherapist nearby who can be consulted in case of injuries leading to prompter treatment. Residual symptoms were also only reported in the sporting group. No conclusions can be made either regarding the severity of the injuries because two of the injuries were recent. Prospective information over a longer period of time could capture the severity of residual symptoms and could also collect more accurate information on absence from physical activities. The complete HAYS study will monitor participants for a year. Comparison to literature is not possible because up till now no studies reported on treatment or residual symptoms of injuries in children and adolescents apart from the warning inadequate treatment and residual symptoms could have consequences into adulthood.(13, 38)

Strengths and limitations

The main strength of the current study is the choice of the specific population of children and adolescents with a disability or chronic disease and the comparison of sporting and non-sporting participants. By doing so, we can inform parents sporting does not lead to an increase of injuries. Several limitations have to be taken into account. Because of the small sample size, due to a limited inclusion period, the outcomes should be interpreted with consideration. It diminished generalizability of results and could have led to an overestimation of the proportion of injuries. However the results give a good indication of differences between sporting and non-sporting participants. Because of the sample size it was not possible to analyze possible risk factors like specific disabilities or diseases or sort of sports. Also the use of questionnaires using a three month recall period could have led to recall bias, although recall periods up to three months are acceptable in retrospective surveys.(48) Furthermore exposure time was not measured objectively which could have led to less precise estimates. However we only used scheduled activities, which depend less on

estimation of involved time. Objective measurement of physical activities will be monitored in the total HAYS-study.

Clinical implications /Future directions

From the results of the current study the following clinical implications can be derived: Sporting is safe for children and adolescents with a physical disability or chronic disease but training should be adapted to habitual levels of physical activity. Also possible intrinsic risk factors, like sort of physical disability or chronic disorder, should be taken into account. Future research on analyzing possible risk factors is required. Furthermore physical education teachers should be informed pupils with low levels of habitual physical activity are more vulnerable.

CONCLUSION

The lower ID for injuries in the sporting group and comparable proportions of injuries in both groups indicate sporting is safe for children and adolescents with a physical disability or chronic disease. In the sporting and non-sporting group type and location of injuries were comparable and most injuries were minor when looking at time loss. All injuries in the non-sporting group were sustained at physical activity of low intensity which suggests the non-sporting group is more vulnerable.

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Appendix 1

Physical activity and injury questionnaire

(to be answered by the participant or parent of participant)

Physical activities

1. Which transportation do you use / does your child use to go to school?
2. How many days per week do you / does your child go to school?
3. How much time is daily spent on transportation to school?
4. Do you / does your child participate in physical education?
5. How many minutes per week is spent on physical education?
6. Do you / does your child participate in sports? Swimming lessons may be included, physical education not.
7. Which sport is practiced the most?
8. How often per week is this sport practiced?(including competitions)
9. How many minutes per week is this sport practiced?
10. Is another sport being practiced?
11. How often per week is this sport practiced?(including competitions)
12. How many minutes per week is this sport practiced?
13. Is another sport being practiced?
14. How often per week is this sport practiced?(including competitions)
15. How many minutes per week is this sport practiced?

Injuries

16. Did you / did your child sustain any injury/injuries in the past three months?
17. If so, please describe the injury / injuries sustained in the last three months
18. What type of injury did you / did your child sustain?
19. Description of injury / injuries
20. Can you describe at which setting the injury was sustained?
21. If the injury was sustained at sports, which sport was involved?
22. Which body part was involved?
23. If applicable, was left or right side involved?
24. Can you indicate when the injury was sustained? (if possible, day, week, month)
25. Do you / does your child still have residual symptoms?
26. Please describe the residual symptoms
27. Did you / did your child need any treatment because of the injury?
28. If treated, who has treated you / your child?

29. Did the injury cause any absence from activities? Please describe the activities (more than one answer possible)
30. If there was absence from sports, for how long was this? (days, weeks, months)
31. If there was absence from physical education, for how long was this? (days, weeks, months)
32. If there was absence from school, for how long was this? (days, weeks, months)
33. If there was absence from other activities, for how long was this? (days, weeks, months)